

CLAIMS

1. A pressure-fluid-operated percussion device comprising a frame (2) allowing a tool (13) to be arranged therein movably in its longitudinal direction, means for feeding pressure liquid to the percussion device (1) and for returning pressure liquid to a pressure liquid tank, and means for producing a stress pulse in the tool by utilizing pressure of the pressure liquid, wherein the percussion device (1) comprises a working pressure chamber (3) filled with pressure liquid and, between the working pressure chamber (3) and the tool (13), a transmission piston (4) which is movably arranged in the longitudinal direction of the frame (2) and which is in contact with the tool (13) either directly or indirectly at least during stress pulse generation, and a charging pressure chamber (7) on the side of the transmission piston (4) facing the tool (13) so that the transmission piston (4) is provided with a pressure surface (A1) facing the working pressure chamber (3) and on the side of the charging pressure chamber (7) a pressure surface (A2) facing the tool (13), **characterized** in that the means for producing a stress pulse comprise a pressure liquid source connected with the working pressure chamber (3) in order to maintain pressure in the working pressure chamber (3), and means for intermittently feeding, to the charging pressure chamber (7), pressure liquid whose pressure enables the transmission piston (4) to be pushed towards the working pressure chamber (3), against the pressure of the pressure liquid in the working pressure chamber (3) and into a predetermined backward position of the transmission piston (4) such that pressure liquid is discharged from the working pressure chamber (3), and for alternately allowing pressure liquid to be discharged rapidly from the charging pressure chamber (7) so that a force produced by the pressure of the pressurized pressure liquid in the working pressure chamber (3) and flowing thereto from the pressure liquid source pushes the transmission piston (4) in the direction of the tool (13), compressing the tool (13) in its longitudinal direction and thus generating a stress pulse in the tool (13).

2. A percussion device as claimed in claim 1, **characterized** in that the means for feeding pressurized pressure liquid to the working pressure chamber (3) are arranged to feed the pressure liquid such that the pressure in the working pressure chamber (3) remains substantially constant during operation of the percussion device.

3. A percussion device as claimed in claim 1 or 2, **characterized** in that pressure liquid of equal pressure is fed to the working chamber (3) and to the charging pressure chamber, and that the pressure surfaces (A1, A2) of the transmission piston (4) facing the working pressure chamber (3) and the charging pressure chamber (7), respectively, are dimensioned such that a sum of forces being formed pushes the transmission piston (4) into its backward position.

4. A percussion device as claimed in any one of the preceding claims, **characterized** in that the working pressure chamber (3) is connected to a pressure liquid source, such as a pressure liquid pump (6), such that the pressure liquid source tries to feed pressure liquid thereto continuously.

5. A percussion device as claimed in any one of the preceding claims, **characterized** in that it comprises a pressure accumulator connected with the working pressure chamber (3).